

## Curriculum vitae

Name Janis Adriaan Pouwelse  
Nationality  
Date of birth  
Place of Birth  
Marital state  
Address

### Education and employment

May 2006 - present Delft University of Technology, Assistant Professor  
Feb 1998 – May 2006 Delft University of Technology, Ph.D. and post-doc  
Jan 1996 - Jan 1998 Delft University of Technology, M.Sc. (**Cum Laude**)  
Sep 1992 - Jan 1996 Haagse Hogeschool (HTS), B.Sc. Computer Science

### Research & professional experience

Jun 2006 – Aug 2006, Harvard Business School, Boston, US  
Invited to work at Harvard and helped conduct an economic impact study of P2P. Specifically, the impact of Bittorrent on Hollywood was studied.

Jul 2005 – Sep 2005, Philips Research Asia, Shanghai, China  
Explored within Philips the business and market possibilities of the Peer-to-Peer technology of Delft University.

Jul 2003 – Sep 2003, Massachusetts Institute of Technology (MIT), Boston  
Worked as a visiting scientist at the Peer-to-Peer research group of MIT.  
Created an infrastructure for real-time performance measurements of the Bittorrent/Suprnova.org P2P file sharing system.

Apr 2001, Seoul National University, Korea  
Short stay for exchange of research ideas on power management and cooperation for building embedded hardware for processor voltage scaling research.

Sep 2000 – Dec 2000, NEC research laboratory, Tokyo, Japan  
Developed embedded software at the NEC image processing department in Japan during an internship. Accelerated numerous image processing operations by exploiting Intel MMX assembly instructions.

### Research

The topics of my research are peer-to-peer (P2P) systems, resource management, collaboration, and networking. My main work method is to generate novel ideas and to improve them based on actual end-user feedback. Currently I am coordinating 18 full-time researchers. Recently I was asked to serve as the technical & scientific director for a planned 20+ Million Euro research project on P2P. This research project binds leading European players (BBC, Broadcasters Union, Pioneer, VTT, etc.) and is now pending approval of the European Union.

My research focus is to add intelligence to networked software. With the P2P team we have designed and build a P2P system called Tribler. Tribler has actual users and functions as an experimental research platform or living laboratory. Tribler has basic understanding of friendship, taste, and the Internet. Tribler now represents the state-of-the-art in non-profit P2P systems. The design of Tribler is based on my experience of measuring existing P2P systems. I have measured numerous aspects of P2P, such as download speed, uptime of peers, content lifetime, and polutions levels. I conducted a detailed measurement study over a period of two years of Bittorrent/Suprnova, a market leading P2P file-sharing system.

During my Ph.D. I created the first system for cooperative resource management for portable devices on Linux. I also implemented the first Linux device driver for real-time processor frequency and voltage scaling. This work evolved into the Linux "CPUFreq" project that has grown to support many processors and is accepted into the Linux kernel. Also, I conducted the first resource usage measurements (Power, CPU) for IEEE 802.11b (Wifi) wireless links in 1999.

### **Key publications on Peer-to-Peer (first author papers only)**

J. Pouwelse, P. Garbacki, J. Wang, A. Bakker, J. Yang, A. Iosup, D. Epema, M. Reinders, M. van Steen, H. Sips, "Tribler: A Social-Based Peer-to-Peer System", *Concurrency and Computation Journal*, Wiley, 2007

J.A. Pouwelse, P. Garbacki, D.H.J. Epema, H.J. Sips, "The Bittorrent P2P File-sharing System: Measurements and Analysis", 4th International Workshop on Peer-to-Peer Systems (IPTPS'05), February 2005 **(19.4 % acceptance rate, 37+82 citations)**

J. Pouwelse, J. Taal, R. Lagendijk, D. Epema, and H. Sips, Real-time Video Delivery using Peer-to-Peer Bartering Networks and Multiple Description Coding, IEEE Int'l Conference on Systems, Man and Cybernetics, Oct 2004

J. Pouwelse, Open Information Pools, Usenix Conference, San Diego, 1999

### **Other key publications**

J. Pouwelse, K. Langendoen, H. Sips, Dynamic voltage scaling on a low-power microprocessor, ACM Mobile Computing Conference (MOBICOM), Jul 2001 **(10.7 % acceptance rate, 143 citations)**

J. Pouwelse, K. Langendoen, H. Sips, Energy priority scheduling for variable voltage processors, International Symposium on Low-Power Electronics and Design (ISLPED), Aug 2001 **(7.7 % acceptance rate, 79 citations)**

*citations according to Google,*

*<http://scholar.google.com/scholar?q=author:pouwelse>*